2.7 SUMMARY

A cost estimate was developed for the refined preferred design concept and scope which would include widening and reconstruction of the pavement throughout the corridor, reconstruction of the majority of the bridge structures, and interchange and safety improvements to bring the corridor up to desired standards. Total costs to construct the proposed project as a toll facility and operate/maintain it over a 40-year period would be approximately $10.3-$12.0 billion. As a non-toll facility, the project would cost less, as there would be no toll gantries or other toll-related equipment or toll-related costs, but these costs are minor compared to the other capital and maintenance costs.

Since it is not possible to fund all the needs along the I-95 corridor with traditional funding sources, it is NCDOT's long term goal to fund all reconstruction, expansion and ongoing life cycle costs of the project using alternative funding strategies. The most feasible funding strategy was determined to be a combination of 1) toll revenue debt and 2) toll equity, with little or no funding from non-toll sources. A tolling analysis was performed to determine financial feasibility of tolling to achieve these goals, and to develop a proposed tolling plan.

The proposed tolling plan is described in **Section 2.4**. Under this plan, tolls would be collected using an All Electronic Toll (AET) system. Three toll collection schemes were considered: entry-exit, barrier with mainline toll zones only, and barrier with mainline toll zones and adjacent interchange ramp tolls. A barrier system with mainline toll zones and adjacent interchange ramp tolls was identified as the most appropriate for this analysis. The tolled traffic, revenue and diversion analyses included in this document have been based upon a barrier system with mainline toll zones spaced at approximately 20-mile intervals and ramp toll zones placed at the adjacent interchanges along I-95. This type of toll plan greatly reduces the potential for traffic to divert off of I-95 and use local roads to re-enter I-95 at a point beyond the mainline toll zone. Roadside infrastructure and interoperability were also discussed. It was assumed that both would be in accordance with existing North Carolina Turnpike Authority practices.

The construction of the preferred design concept and scope was divided into two phases for the financial analysis. An initial phase was identified that would provide for the capacity improvements that are the most critical within the entire I-95 corridor in North Carolina. This Phase 1 extends approximately 61 miles from south of the Fayetteville area, NC 211 at MM 20 to I-40 at MM 81. Phase 2 would include the reconstruction of the remainder of the I-95 corridor.

The entire corridor would be tolled upon completion of Phase 1, with different rates assumed for Phase 1 and Phase 2. Two bonding scenarios were evaluated for the preliminary finance plan. The 'Gross Pledge' scenario assumes that Operations and Maintenance costs are pledged by an outside funding entity, in this case the NCDOT, and are taken out of the preliminary Finance Plan. The 'Gross Pledge' case has no upfront funding gap and generates residual revenue with a present value of $3.30 billion. The 'Net Pledge' case includes the Operations and Maintenance costs as a project cost to be paid by toll equity. The 'Net Pledge' case has a $180 million upfront funding gap and generates residual revenue with a net present value of $3.24 billion. Both cases for Phase 1 would produce sufficient revenue to cover the estimated present day cost for the Phase 2 improvements of approximately $2.63 billion.